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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/541,072	05/15/2006	Valerie Lejeune	3888-0110PUS1	4138
2292	7590	08/09/2007		
BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			EXAMINER ROBINSON, ELIZABETH A	
			ART UNIT 1773	PAPER NUMBER
			NOTIFICATION DATE 08/09/2007	DELIVERY MODE ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/541,072	LEJEUNE, VALERIE	
	<b>Examiner</b>	<b>Art Unit</b>	
	Elizabeth Robinson	1773	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 29 June 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) 7-15 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |  |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input checked="" type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. <u>20070727</u>                             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application  |
| Paper No(s)/Mail Date <u>06-29-2005</u>  | 6) <input type="checkbox"/> Other: _____                           |

## **DETAILED ACTION**

### ***Election/Restrictions***

Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions, which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claim(s) 1-6, drawn to a sheet.

Group II, claim(s) 7-15, drawn to a method of making a sheet.

The inventions listed as Groups I and II do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons:

Groups I and II claim the same technical feature, a sheet with iridescent appearance comprised of an iridescent pigment and hollow plastic microspheres, as in claim 1. However the sheet of claim 1 does not exhibit "special technical features" because it does not make a contribution over the prior art. Miyamoto et al. (US 6,120,590) teaches a pigment ink that can provide drawn lines having a metallic lustrous color (iridescent appearance) on a writing paper (Column 18, lines 37-44). The ink composition can also be used for stamps or printers. This provides a sheet with an iridescent appearance. The ink layer is comprised of a metal powder pigment (Column 3, lines 37-43) that can provide a polychromatic color (iridescent pigment) and hollow plastic spheres (Column 9, lines 32-35). The spheres have a size of 200 nm or more and are thus microspheres.

The examiner has required restriction between product and process claims. Where applicant elects claims directed to the product, and the product claims are subsequently found allowable, withdrawn process claims that depend from or otherwise require all the limitations of the allowable product claim will be considered for rejoinder. All claims directed to a nonelected process invention must require all the limitations of an allowable product claim for that process invention to be rejoined.

In the event of rejoinder, the requirement for restriction between the product claims and the rejoined process claims will be withdrawn, and the rejoined process claims will be fully examined for patentability in accordance with 37 CFR 1.104. Thus, to be allowable, the rejoined claims must meet all criteria for patentability including the requirements of 35 U.S.C. 101, 102, 103 and 112. Until all claims to the elected product are found allowable, an otherwise proper restriction requirement between product claims and process claims may be maintained. Withdrawn process claims that are not commensurate in scope with an allowable product claim will not be rejoined. See MPEP § 821.04(b). Additionally, in order to retain the right to rejoinder in accordance with the above policy, applicant is advised that the process claims should be amended during prosecution to require the limitations of the product claims. **Failure to do so may result in a loss of the right to rejoinder.** Further, note that the prohibition against double patenting rejections of 35 U.S.C. 121 does not apply where the restriction requirement is withdrawn by the examiner before the patent issues. See MPEP § 804.01.

During a telephone conversation with Robert Gnuse on July 24, 2007, a provisional election was made with traverse to prosecute the invention of Group I,

claims 1-6. Affirmation of this election must be made by applicant in replying to this Office action. Claims 7-15 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

Claims 4 and 6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claim 4 recites the

broad recitation “between 0.5  $\mu\text{m}$  and 1.0  $\mu\text{m}$ ”, and the claim also recites “equal to approximately 0.6  $\mu\text{m}$ ”, which is the narrower statement of the range/limitation.

Similarly, claim 6 recites the broad recitation “transparent or translucent”, and the claim also recites “natural tracing paper”, which is the narrower statement of the range/limitation. It is also unclear, in claim 6, if the base sheet or the coated sheet is what is transparent or translucent. The coated sheet would no longer be “natural” tracing paper. There is also no definition of how opaque a paper can be and no longer be considered translucent.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 and 4 are rejected under 35 U.S.C. 102(b) as being anticipated by Miyamoto et al. (US 6,120,590).

Regarding claim 1, Miyamoto et al. (US 6,120,590) teaches a pigment ink that can provide drawn lines having a metallic lustrous color (iridescent appearance) on a writing paper (Column 18, lines 37-44). The ink composition can also be used for stamps or printers. This provides a sheet with an iridescent appearance. The ink layer is comprised of a metal powder pigment (Column 3, lines 37-43) that can provide a

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polychromatic color (iridescent pigment) and hollow plastic spheres (Column 9, lines 32-35). The spheres have a size of 200 nm or more and are thus microspheres.

Regarding claim 4, Miyamoto (Example 2, Column 11, lines 48-65) teaches that the hollow particles have an average particle diameter of 550 nm (0.55  $\mu$ m). This size meets the limitations of the instant claim.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mougin (WO/2001/89470). The examiner is using US 2002/0115780 as the English language equivalent of the World document.

Regarding claim 1, Mougin (Paragraph 131) teaches a composition which can be used as a nail varnish. The nail varnish is applied to nails (Paragraph 149) thus forming a sheet. The varnish can comprise hollow polymer microspheres (Paragraph 124) and nacre (iridescent) pigments (Paragraph 126). The binder for the varnish (Paragraph 148) is ethyl acetate and an acrylate copolymer, which would be colorless. Thus with iridescent pigments, the sheet would be inherently iridescent in appearance.

Regarding claim 2, Mougin (Paragraph 126) teaches that the iridescent pigment can be mica coated with titanium oxide.

Regarding claim 6, the nail vanish is coated on a nail (Paragraph 149), which is a translucent substrate. The binder is colorless, and the other ingredients (titanium oxide coated mica and hollow plastic microspheres) are the same as in the instant application. Thus, the sheet would be translucent.

Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson et al. (US 6,242,047), in view of Linton (US 3,087,828).

Regarding claim 1, Johnson (Column 2, lines 1-4) teaches a coated paper with high gloss. The coating composition can comprise standard coating pigments and plastic particles. The plastic particles are preferably hollow plastic microspheres (Column 2, lines 62-67). Johnson does not teach an iridescent pigment. Linton (column 2, lines 43-53) teaches a nacreous (iridescent) flake pigment. These pigment flakes can be used in compositions such as paints or inks to which they impart decorative effects (Column 11, lines 54-64). They can be used in admixtures with conventional pigments and still provide a pronounced nacreous character (iridescent appearance) (Column 11, lines 22-28). It would be obvious to one of ordinary skill in the art to add the iridescent pigment of Linton, as a pigment of Johnson, in order to obtain a paper with an iridescent decorative effect.

Regarding claim 2, Linton (Column 5, lines 18-21) teaches that the flake pigment is preferable mica coated with titanium oxide.

Regarding claims 3 and 4, Johnson (Column 2, line 62 through Column 3, line 5) teaches that the hollow plastic sphere has a particle size of up to 1.0 micron and is selected from the group consisting of polystyrene, acrylics and methacrylates. The

example hollow microsphere is Rohm and Haas HP 1055 (Column 3, lines 25-28). As evidenced by Velpari et al. (US 2002/0058449) these hollow spheres are styrene acrylic.

Regarding claim 5, Johnson (Table 1 and Example 1, Column 3) teaches that the gloss of calendered sheets is 84 or greater. While these sheets did not have the mica particles, due to the high gloss values given, the sheet would either inherently meet the gloss level of the instant claim or alternately, Johnson teaches that increasing the levels of plastic pigment increases the gloss level. It would be obvious to one of ordinary skill in the art to adjust the amount of plastic pigment in the coating to achieve a desired gloss level.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth Robinson whose telephone number is 571-272-7129. The examiner can normally be reached on Monday- Friday 8 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carol Chaney can be reached on 571-272-1284. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ear



**CAROL CHANEY**  
**SUPERVISORY PATENT EXAMINER**

